A+J

A & J MICRO DRIVE

Dealer Discount Schedule

Part	Retail	2-4 Qty	5-up Qty
	149.50	110.00	100.00
Model 1000	$169.50	$127.13 (25%)	$127.13 (25%)
Model 2000	199.50	149.62 (25%)	119.70 (40%)
Model QC-110	84.95	63.71 (25%)	56.63 (33%)

Micro Wafer (Model 1000 Only)

		10-99 Qty	100-up Qty
5'	$3.50	$2.62 (25%)	$2.33 (33%)
10'	3.50	2.62 (25%)	2.33 (33%)
20'	4.00	2.75 3.00 (25%)	2.25 2.40 (40%)
35'	4.00	3.00 (25%)	2.40 (40%)
50'	4.50	3.38 (25%)	2.70 (40%)

Micro Wafer II (Model 2000 & QC-110)

		10-99 Qty	100-up Qty
10'	$4.25	$3.19 (25%)	$2.55 (40%)
20'	4.25	3.19 (25%)	2.55 (40%)
35'	4.50	3.38 (25%)	2.70 (40%)
50'	4.75	3.56 (25%)	2.85 (40%)
62'	4.75	3.56 (25%)	2.85 (40%)

Accessories:

Model 1000 Drive 2	$99.50	$74.63 (25%)	
Model QC-110 Drive 2	79.95	53.30 (33%)	
Model 2000 Drive 2	124.50	93.37 (25%)	
Wafer Organizer	$5.00	$3.00 (40%)	3 minimum
Wafer Caddy	9.95	7.46 (25%)	3 minimum
Wafer Wheel	18.75	14.06 (25%)	3 minimum

Notes to Dealers:

Terms: C.O.D.
Shipments: UPS Ground FOB Sunnyvale
Minimums: Do not apply on 1st purchase
Micro wafer lenghts can be mixed to meet minimum

Minimum Purchase: $50.00

A&J MICRO DRIVE SALES & SERVICE

MODEL 2000
END USER HARDWARE PRICE LIST
COMPATIBLE WITH TIMEX 2068

DECEMBER 1, 1984

PART #	PRODUCT	PRICE
820036	MODEL 2000 STRINGY FLOPPY II includes: Interface, Drive, Expansion cardedge Owner's Manual, 5 Micro Wafer II, Wafer Organizer	$ 199.50
830017	MODEL 2000 OWNER'S MANUAL	4.95
900001	10′ MICRO WAFER II	4.25
900002	20′ MICRO WAFER II	4.25
900003	35′ MICRO WAFER II	4.50
900004	50′ MICRO WAFER II	4.75
900005	62′ MICRO WAFER II	4.75
850001	WAFER ORGANIZER (Folder holds 16 wafers)	5.00
850002	WAFER CADDY (Desk Top Tray Holds 6 wafers)	9.95
850003	WAFER WHEEL (Desk Top Wheel Holds 30 wafers)	18.75

Software Manufacturers using Micro Wafer II Media:

Games to Learn By, P.O. Box 78, Collinsville, CT 06022, 203-673-7089
Banta Software, 8088 Highwood Way, Orangevale, CA 95662, 916-722-4895

Other A&J Micro Drive Hardware Suppliers:

Knighted Computer, 707 Highland St., Fulton, NY 13069, 315-593-8219
Curry Computer, 5344 Banff, Glendale, AZ 85036, 602-978-2902
Games to Learn By, P.O. Box 78, Collinsville, CT 06022, 203-673-7089
Gladstone Electronics, 1736 Avenue Rd., Toronto, Ontario, Canada M5M 3Y7
E. Author Brown, 3404 Pawnee Dr., Alexandria, MN 56380, 612-762-8847
TS Services, P.O. Box 15214, Red Bank, TN 37415, 615-877-6328

STANDARD WARRANTY:
All A&J Micro Drive Sales & Service products (except MICRO WAFERS) are warranted for 90 days. If your products should fail within 90 days, A&J Micro Drive will repair your products for no charge, if return postage paid. Additionally, all products may be returned postage paid within 30 days for full refund of purchase price. 30 day refund policy may vary with A&J Micro Drive Hardware suppliers.

WAFER WARRANTY:
Wafers are quaranteed for a period of 45 days from date of shipment. If the wafer should fail during this period, return the wafer post paid and replacements will be returned as soon as possible at no charge.

EXCEPTIONS TO WARRANTY:
Operator misuse.
Customer repairs or modifications not authorized by A&J Micro Drive Sales & Service.
Shipment damaged due to improper packing.

Price and specifications subject to change without notice.

A&J MICRO DRIVE 1050 "I" EAST DUANE AVENUE, SUNNYVALE, CA 94086 (408) 732-9292

Jim

A&J MICRO DRIVE
ORDER FORM

DATE ____________

MARK YOUR SYSTEM (REQUIRED)

☐ RIS MODEL I/III
☐ Timex 1000
☐ Timex 1500
☐ MTU-225
☐ Sinclair ZX-81
☐ Sinclair ZX-80
☐ Timex 2068
☐ Other ____________
☐ Commodore 64
☐ VIC 20
☐ MTU-231

QTY	ITEM	UNIT PRICE	PRICE

SUBTOTAL ____________

Sales Tax (CA residents only) ____________

Shipping & Handling Charge ____________

C.O.D. Charge ____________

TOTAL ____________

Shipping and Handling:			
	Software & Wafers		$ 3.00
	Starter Kits	USA	6.50
	and Drives	Canada	10.00
		C.O.D.	1.65

PAYMENT BY:

Visa Cd. No. ____________ Expires ____________

Mstrchge Cd. No. ____________ Expires ____________

Name ____________

Address ____________

City ____________ State ______ Zip ____________

Phone: Business (   ) ____________ Home (   ) ____________

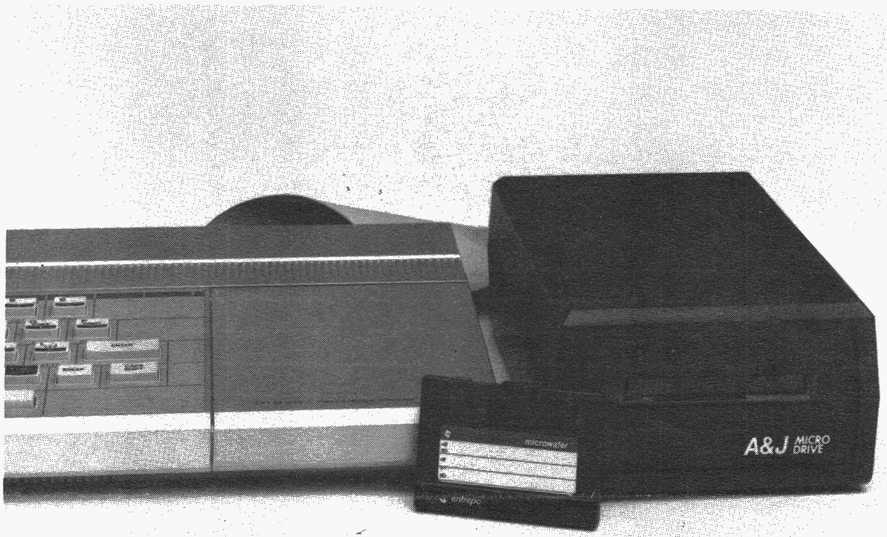
NOTES:
1. Allow at least four weeks for shipping and handling.
2. Normal shipment is by UPS.
3. Prices and specifications subject to change without notice.

A&J MICRO DRIVE 1050 "I" EAST DUANE AVENUE, SUNNYVALE, CA 94086 (408) 732-9292

RMG ENTERPRISES
1419 1/2 7TH STREET
OREGON CITY, OR 97045

MODEL 2000
STRINGY FLOPPY

From **A&J MICRO DRIVE**



Pictured above is a Timex 2068 computer, Stringy Floppy Interface & Drive and a Micro Wafer II.

FEATURES

1. Lowest cost high speed mass storage system available.
2. High speed 11K baud data transfer rate.
3. Loads 28K program in 24 seconds.
4. Simple easy to use!
5. 90 day warranty.
6. Reliable and portable.
7. No rewinding or volume controls.
8. No cassette hassles.

A&J MICRO DRIVE 1050 "I" EAST DUANE AVENUE SUNNYVALE, CA 94086 (408) 732-9292

SYSTEM SPECIFICATIONS

Dimensions:	
Drive	6.5 x 4.5 x 3 inches
Cable	18 inches

Weight:	
Drive	24 oz.

Operating Environment:	
Temperature	10°C to 50°C
Relative Humidity (noncondensing)	20% to 80%

Power Requirements:	V_{Input}	V_{cc}
Voltage (including ripple)	15V DC .25 amp	+5Vdc ±5%
Maximum ripple	200 mV_{p-p}	---

Tape Speed (typical values):	Normal
Speed	10*ips*(±3%)
Start Time	150ms
Stop Time	100ms
Start Distance	1.0 in.
Stop Distance	.8 in.

Signal Levels: (LSTTL Compatible)	
Input True (low)	0.8V max
Input False (high)	2.0V min.
Output True (low)	0.4V max.
Output False (high)	2.4V max.

Data:	
Transfer Rate	11400 baud
Jitter (output)	5% or less
Capacity (62 ft. wafer)	to 85K bytes

MONEY BACK GUARANTEE:

All wafer drive come with a 30-day unconditional money-back guarantee. 30 day refund policy may vary with A&J Micro Drive hardware suppliers.

WAFER DRIVE WARRANTY:

All A&J Micro Drive Sales & Service products (except MICRO WAFERS) are warranted for 90 days. If your products should fail within 90 days, A&J Micro Drive will repair your products for no charge, if return postage paid. Additionally, all products may be returned postage paid within 30 days for full refund of purchase price.

MICRO WAFER WARRANTY:

Wafers are guaranteed for a period of 45 days from date of shipment. If the wafer should fail during this period, return the wafer post paid and replacements will be retuned as soon as possible at no charge.

EXCEPTIONS TO WARRANTY:

Operator misuse.
Customer repairs or modifications not authorized by A&J Micro Drive Sales & Service.
Shipment damaged due to improper packing.

RMG ENTERPRISES
1419 1/2 7TH STREET
OREGON CITY, OR 97045

MODEL 2000 STRINGY FLOPPY SYSTEM

What can I connect the Stringy Floppy to?

The Model 2000 Stringy Floppy is compatible with the Timex 2068 Computer.

How do you connect it?

Connection of the Model 2000 Stringy Floppy is very easy. The system has an 18 inch 64 conductor flat cable with the mating card edge connector attached to the end. Simply plug the card edge connector/cable assembly Printed Circuit Board into the system bus connector. No modifications to the Timex 2068 are required to run the system.

How do you use the Model 2000?

The Model 2000 operating system patches the cassette routines to the drive. All you need to do to use the Model 2000 is insert the stringy floppy flag and file number inside the quotes of the file name in any save and load operation. The stringy floppy flag is the "@" symbol. The file number is any number from 1 to 9. An example of saving a program with the name of TEST as the first file on your Micro Wafer is; SAVE "@1,TEST". You must save files in order and file 3 cannot be saved until file 2 exists.

What is the storage capacity of the Micro Wafer II?

Below is a table of the available lengths, storage capacity, and run time for each of the Micro Wafer II. The run time is equal to the time it takes the Micro Wafer II to run one complete revolution. This means a 35′ Micro Wafer II which holds 49K of data could load a 49K program in 42 seconds.

Length	Storage	Run Time
10′	14K	12 sec.
20′	28K	24 sec.
35′	49K	42 sec.
50′	70K	60 sec.
62′	85K	73 sec.

Where does the operating system reside in memory?

The Model 2000 Stringy Floppy operating system resides inside the Extension ROM area. This ROM had a 2K area of unused ROM where we placed the bulk of our operating system. The remaining 100 bytes of stack, pointers, and other bookkeeping functions reside from F000-F100. We also reset Basic RAM top to EFFF (4K bytes below the normal top).

Where does the power come from?

Power for the Model 2000 Stringy Floppy is taken directly from the Timex 2068. Our Model 1000 supplied its own power, but the 2068 has plenty of power to run our system.

Will I experience save and load problems like in the cassette?

No! Our system uses advanced digital circuitry to read and write data quickly and without errors. We write to our Micro Wafer in a FM (Frequency Modulation) recording format. Frequency Modulation is the standard method used in floppy disk recording.

How will A&J Micro Drive support the Model 2000 Stringy Floppy?

A&J Micro Drive will support the Micro Drive by offering commercial software and hardware distributers incentives to convert to the Model 2000 system. We feel we have successfully started this process.

Will you release source code for the operating system?

Yes. The source code will be released. Releasing the source code will help commercial software developers program more efficiently with respect to the Model 2000 Stringy Floppy. It will also be helpful to those advanced home programmers in their development as well.

Are the Model 2000 and Model 1000 compatible?

No. The Model 2000 Stringy Floppy uses a new improved tape drive and tape. We choose to use the new system because it performs better than the older system. Also, the new drive and tapes are being used in other systems meaning the tapes will be available from more locations. Also, the greater volume of tape sales will decrease the tape price over time.

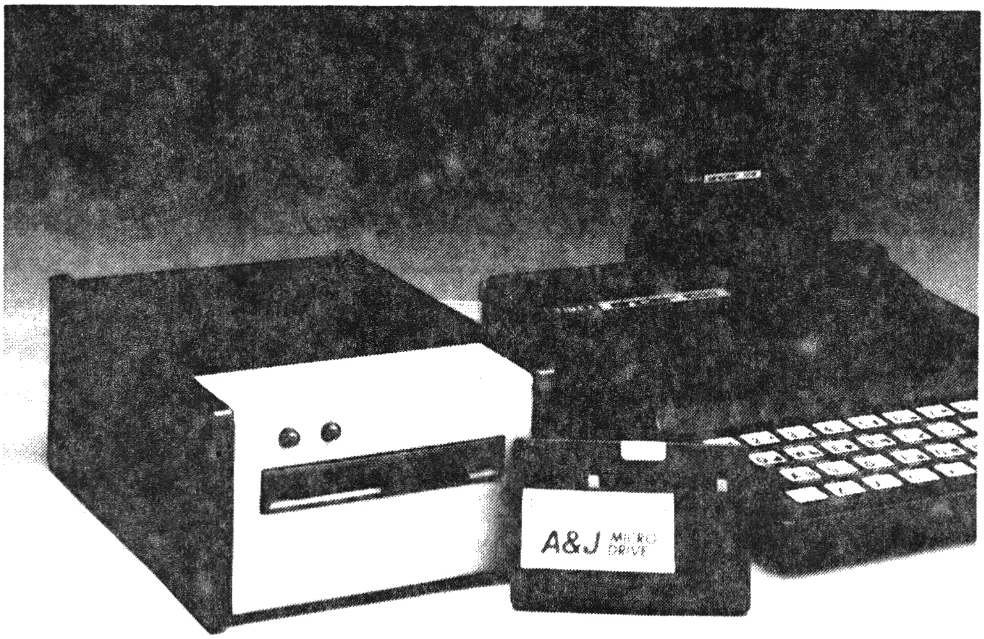
Why did A&J Micro Drive design a Stringy Floppy and not a Disk?

Price and ease of use for the customer. The disk interface WITHOUT the first drive, power supply, cable will cost as much as a complete Model 2000 Stringy Floppy. The extras needed to run the disk interface will cost at least another $250.00. Also, the Model 2000 is very easy to use and really nothing new must be learned to use the system.

ORDERED
3-6-84

STRINGY FLOPPY
FOR
THE TIMEX/SINCLAIR

From **A&J MICRO DRIVE**



Pictured above is a Timex 1000 computer, Stringy Floppy Interface & Drive, 16K RAM Pack and a Micro Wafer.

ADVANTAGES OF THE STRINGY FLOPPY

1. Data transfer of 10.4K baud (30 times faster than cassette)
2. No sensitive volume controls
3. ESF keeps updated directory file
4. Automatic verify with save
5. No rewinding or buttons to push
6. All power supplied from wall transformer
7. Plugs into expansion port
8. Compatible with other peripherals
9. Dual drive systems
10. Up to 127 files per tape
11. Program chaining capabilities
12. Works with machine language
13. Portable and reliable

A&J MICRO DRIVE 10[illegible] EAST DUANE AVENUE SUNNYVALE, CA 94086 (408) 732-9292

THE STRINGY FLOPPY SYSTEM
HOW TO USE IT

WHAT CAN I CONNECT THE STRINGY TO?

The Stringy Floppy is designed to be used with the Sinclair ZX-80, Sinclair ZX-81, Timex 1000, and Timex 1500. If you wish to use the Stringy with the ZX-80 you must have the 8K ROM BASIC INTERPRETER. For the Timex 1500 some kind of extender will be needed to move the Stringy away from the back of the computer. A Timex printer works just fine.

HOW DO YOU CONNECT IT?

Connection of the Stringy Floppy to your computer is extremely straight forward. Just plug the Stringy Floppy into the expansion port on the rear of your computer and a 120V AC outlet. If you have something already connected (such as a RAM pack), then plug the Stringy Floppy in first and use its expansion port for the RAM pack.

Once connected to the computer, the operating system needs to be activated. Simply type "PRINT USR 12345" (ENTER). Your computer will instantly display the easy to use command menu table. The following should appear:

```
     EXATRON STRINGY FLOPPY
        OPERATING SYSTEM

  1.  GET WAFER DIRECTORY
  2.  LOAD PROGRAM
  3.  SAVE BASIC PROGRAM
  4.  INITIALIZE WAFER
  5.  RETURN TO BASIC
  6.  LOAD BY NUMBER
  7.  SAVE MACHINE PROGRAM
  8.  SELECT DRIVE
  9.  COPY WAFERS
```

Once into the operating system, push the numbered key corresponding to the command you want. The Stringy Floppy does the rest.

MONEY BACK GUARANTEE:

All wafer drive come with a 30-day unconditional money-back guarantee.

WAFER DRIVE WARRANTY:

All A&J Micro Drive Sales & Service products (except MICRO WAFERS) are warranted for 90 days. If your products should fail within 90 days, A&J Micro Drive will repair your products for no charge, if return postage paid. Additionally, all products may be returned postage paid within 30 days for full refund of purchase price.

MICRO WAFER WARRANTY:

Wafers are guaranteed for a period of 45 days from date of shipment. If the wafer should fail during this period, return the wafer post paid and replacements will be returned as soon as possible at no charge.

EXCEPTIONS TO WARRANTY:

Operator misuse.
Customer repairs or modifications not authorized by A&J Micro Drive Sales & Service.
Shipment damaged due to improper packing.

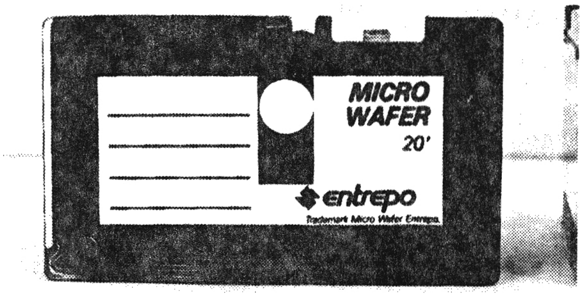
SHIPPING CHARGES = $3.00 C.O.D. = $1.65 CA RESIDENTS ADD 6.5% TAX

THE MICRO WAFER & WAFER TRANSPORT

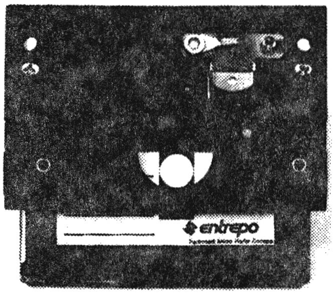
MICRO WAFER SPECIFICATIONS:

Configuration	Continuous-loop cartridge
Data Capacity, maximum (50-foot, 15.24 metre, wafer; recorded at 10400 baud)	70K
DIMENSIONS	
Wafer	
Size	1.6 by 2.7 by 0.2 inches (4.06 by 6.86 by 0.5 cm)
Weight (typical)	1/3 ounce (9.4 grams)
Tape	
Width	0.068 inches (1.72 mm)
Thickness	0.001 inches (0.025 mm)
Length, Maximum	50 feet (15.25 metres)
Length, Minimum	5 feet (1.52 metres)
EOT/BOT-Marker Length	0.55 inches (14 mm)
Tape Materials	
Base	Mylar
Magnetic Coating	Chromium Dioxide
Back-of-Tape Coating	Proprietary, low-friction.
Write-Protect Marker, Diameter	0.3125 inches (8 mm)

MICRO WAFER



WAFER TRANSPORT



TRANSPORT SPECIFICATIONS:

Material	Precision die-cast ABS
Finish	Black
Weight	4 ounces (113 grams)
OPERATING CONDITIONS:	
Temperature range	+5 to +45 degrees C
Relative Humidity (non-condensing)	20% to 80%
MOTOR:	
Type	DC permanent magnet, 3 pole
Voltage, nominal	+6 volts
Load Current, typical	50 mA
Starting Current	500 mA
Start Time	150 mS
Stop time	100 mS
READ/WRITE HEAD:	
Track Width	0.074 inches (1.8 mm)
Inductance, maximum	50 mH
Resistance, maximum	100 ohms
Gap Width	0.0001 inches (0.0025 mm)
EOT/BOT sensor to R/W head gap	2 inches (5 cm)
Write Current for 145% of saturation	2.8 mA (peak-to-peak)
Output Voltage	6 mV (peak-to-peak minimum)

(10-inches, 25.4 cm, per second; 3200 flux changes per inch, 2.54 cm, 145% of saturation)

SYSTEM SPECIFICATIONS

Dimensions:

Drive	6 x 4 x 2.5 inches
Interface	6.5 x 1.5 x 3 inches
Cable	15 inches

Weight:

Drive	24 oz.
Interface/Cable	6 oz.

Operating Environment:

Temperature	10° C to 50° C
Relative Humidity (noncondensing)	20% to 80%

Power Requirements:	V_{Input}	V_{cc}
Voltage (including ripple)	12V AC .93 amp	+5Vdc ±5%
Maximum ripple	200 mV_{p-p}	---
Operating Current (typical):	I_{Input}	I_{cc}
Standby	200mA	150mA
Normal Speed	250MA	155mA
Starting	300mA	155mA

Tape Speed (typical values):	Normal
Speed	10*ips*(±3%)
Start Time	150ms
Stop Time	100ms
Start Distance	1.0 in.
Stop Distance	.8 in.

Signal Levels: (LSTTL Compatible)

Input True (low)	0.8V max.
Input False (high)	2.0V min.
Output True (low)	0.4V max.
Output False (high)	2.4V max.

Data:

Transfer Rate	10400 baud
Jitter (output)	5% or less
Capacity (50-ft. wafer)	to 70K bytes

A&J MICRO DRIVE SALES & SERVICE

END USER HARDWARE PRICE LIST FOR TIMEX/SINCLAIR

JANUARY 1, 1984

PART #	PRODUCT	PRICE
820008	TIMEX/SINCLAIR ESF STARTER KIT includes: Interface, Drive 0, Cables, Power Supply, Manual, Operating System, 50', 35' & 20' Micro Wafers	$149.50
820006	ESF DRIVE 0	99.50
820007	ESF DRIVE 1	99.50
820025	INTERFACE	79.50
830003	OWNER'S MANUAL	4.95
840025	MACHINE LANGUAGE MONITOR Helps with machine language programming	19.95
800001	5' MICRO WAFER	3.50
800002	10' MICRO WAFER	3.50
800003	20' MICRO WAFER	4.00
800004	35' MICRO WAFER	4.00
800005	50' MICRO WAFER	4.50
850001	WAFER ORGANIZER (Folder holds 16 wafers)	5.00
850002	WAFER CADDY (Desk Top Tray Holds 12 wafers)	9.95
850003	WAFER WHEEL (Desk Top Roldex Holds 40 wafers)	18.75

STANDARD WARRANTY:
All A&J Micro Drive Sales & Service products (except MICRO WAFERS) are warranted for 90 days. If your products should fail within 90 days, A&J Micro Drive will repair your products for no charge, if return postage paid. Additionally, all products may be returned postage paid within 30 days for full refund of purchase price.

WAFER WARRANTY:
Wafers are guaranteed for a period of 45 days from date of shipment. If the wafer should fail during this period, return the wafer post paid and replacements will be returned as soon as possible at no charge.

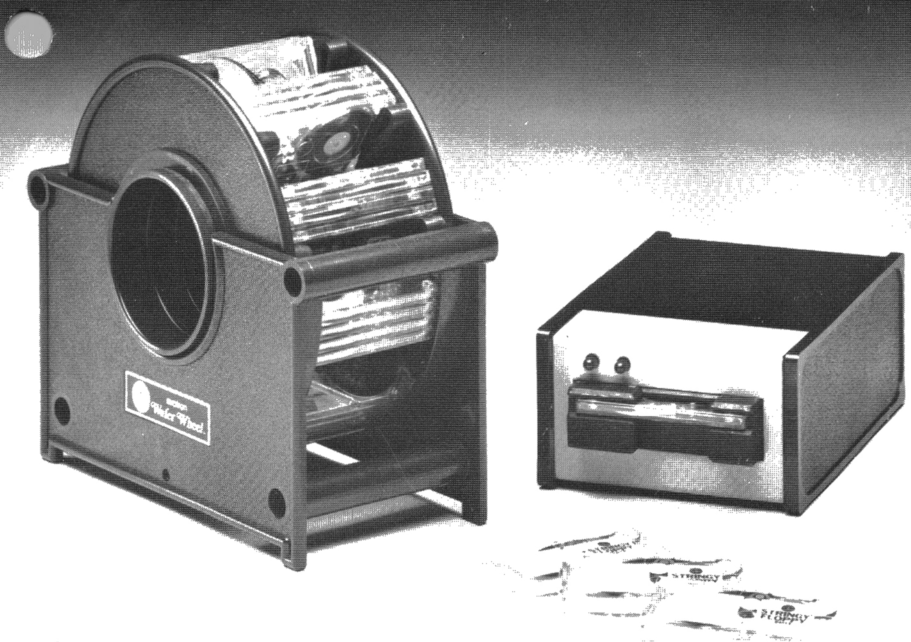
EXCEPTIONS TO WARRANTY:
Operator misuse.
Customer repairs or modifications not authorized by A&J Micro Drive Sales & Service.
Shipment damaged due to improper packing.

Price and specifications subject to change without notice.

Ordered
7-29-84
1 wheel
5 10'-TAPES

Introducing . . .

The Wafer Wheel™



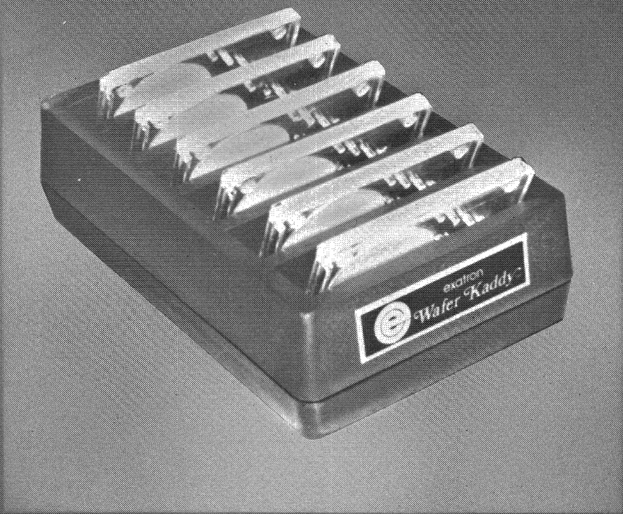
- Protect your valuable collection of Stringy-Floppy Wafers.
- Holds 40 Wafers in ten compartments for easy organization.
- Rotates to eye level for easy access.
- Can be positioned on top of drive unit to conserve space.
- Made of high impact ABS plastic (like your telephone) in chocolate brown.

* DRIVE UNIT & WAFERS NOT INCLUDED

DISTRIBUTED BY

INTRODUCING

Wafer Kaddy T.M.



- Organize your Stringy-Floppy Wafers.
- Wafers slant for quick identification.
- Holds up to 12 Wafers in six compartments for easy access.
- Can be positioned on top of drive unit to conserve space.
- Made of high impact ABS plastic (like your telephone) in chocolate brown.

WAFERS NOT INCLUDED.

DISTRIBUTED BY

A&J MICRO DRIVE

6-7-85

A&J Micro Drive Dealers;

A&J Micro Drive would like to announce some exciting changes in our system and some new pricing schedules.

A&J now has an inhanced printer driver and has made a change in the drive and tape. The new printer driver can be used with existing software and even gives instructions to patch Tasword II with the Stringy Floppy printer port. The printer driver also allows for use of the copy function and many other inhanced features (enclosed find a copy of the new manual). As most dealers know by now, we have changed the tape and drive mechanism we use in the Model 2000 drive. The new drive and tape we use is really the same as the drive and tape we use in our Model 1000 Stringy Floppy. We made this change because this drive is easier for us to build and costs our customers less. The tapes are as well less expensive.

Besides the new driver and hardware changes, A&J has made some changes to in our retail prices and dealer discounts. We feel these changes should make our products much more attractive to our customers and increase sales. Enclosed find a copy of the new pricing schedule.

Sincerely;

Jim & Annette Howell

Owners

1050 EAST DUANE AVENUE • SUITE I
SUNNYVALE, CA 94086 • (408) 732-9292

A&J Micro Drive

Dealer Discount Schedule (June 1, 1985)

Part	Retail	2-4 Qty	5-Up Qty
Model 1000	$149.50	$110.00	$100.00
Model 2000	$149.50	$110.00	$100.00

A&J Micro Wafer (Model 1000 & Model 2000 Ver. 2)

		10-99 Qty	100-Up Qty
5'	$3.50	$2.75	$2.25
10'	$3.50	$2.75	$2.25
20'	$4.00	$2.75	$2.25
35'	$4.00	$2.75	$2.25
50'	$4.50	$2.75	$2.25

Entrepo Micro Wafer (Model 2000 Ver. 1)

10'	$4.25	$3.19	$2.55
20'	$4.25	$3.19	$2.55
35'	$4.50	$3.38	$2.70
50'	$4.75	$3.56	$2.85
62'	$4.75	$3.56	$2.35

A&J Micro Drive Accessories

Model 2000 Drive 2	$99.50	$74.63	(Min. 1)
Model 2000 Prn. Kit A	$39.50	$25.00	(Min. 1)
Model 2000 Prn. Kit B w/o Chip & tape	$24.50	$15.00	(Min. 1)
Wafer Organizer	$5.00	$3.00	(Min. 2)
Wafer Caddy	$9.95	$7.46	(Min. 2)
Wafer Wheel	$18.75	$14.06	(Min. 2)